

MARKED UP VERSION OF AMENDMENTSClaim Amendments Under 37 C.F.R. § 1.121(c)(1)(ii)

2. (Twice Amended) A kit comprising:
- (a) an array comprising one or more oligonucleotide tags fixed to a solid substrate, wherein each oligonucleotide tag comprises a unique known arbitrary nucleotide sequence of sufficient length to hybridize to a locus-specific tagged oligonucleotide; [and]
  - (b) one or more locus-specific tagged oligonucleotides, wherein each locus-specific tagged oligonucleotide has at its first (5') end nucleotide sequence which hybridizes to the arbitrary sequence of a corresponding oligonucleotide tag on the array, and has at its second (3') end nucleotide sequence complementary to target polynucleotide sequence in a sample wherein the last nucleotide at the 3' end of the locus-specific tagged oligonucleotide hybridizes exactly one nucleotide before the nucleotide to be queried in the target polynucleotide sequence[.] ; and
  - (c) at least two labeled dideoxynucleotides, each of which is distinctly labeled.
20. (Twice Amended) A [set of primers for use in determining a ratio of nucleotides present at a polymorphic locus,] kit comprising:
- (a) a pair of primers which when in the presence of a DNA polymerase amplify a region of double stranded DNA, wherein the region comprises a polymorphic locus; and
  - (b) an extension primer which comprises a 3' portion which is complementary to a portion of the region of double stranded DNA and a 5' oligonucleotide portion which is not complementary to the region of double stranded DNA, but which is complementary to a unique known sequence of an oligonucleotide tag fixed to a solid substrate, wherein the extension primer is complementary to the 3' nucleotide sequence of the polymorphic locus, and wherein the last nucleotide at the 3' end of the extension primer hybridizes exactly one nucleotide before the polymorphic locus[.] ; and
  - (c) at least two labeled dideoxynucleotides, each of which is distinctly labeled.

21. (Twice Amended) A kit comprising in a single container two or more [of the] sets of primers [of claim 20], each set comprising:

- (a) a pair of primers which when in the presence of a DNA polymerase amplify a region of double stranded DNA, wherein the region comprises a polymorphic locus; and
- (b) an extension primer which comprises a 3' portion which is complementary to a portion of the region of double stranded DNA and a 5' oligonucleotide portion which is not complementary to the region of double stranded DNA, but which is complementary to a unique known sequence of an oligonucleotide tag fixed to a solid substrate, wherein the extension primer is complementary to the 3' nucleotide sequence of the polymorphic locus, and wherein the last nucleotide at the 3' end of the extension primer hybridizes exactly one nucleotide before the polymorphic locus;

and at least two labeled dideoxynucleotides, each of which is distinctly labeled.

22. (Twice Amended) A kit comprising in a single container:

- (a) a set of primers, comprising:
  - (1) a pair of primers which when in the presence of a DNA polymerase amplify a region of double stranded DNA, wherein the region comprises a polymorphic locus; and
  - (2) an extension primer which comprises a 3' portion which is complementary to a portion of the region of double stranded DNA and a 5' oligonucleotide portion which is not complementary to the region of double stranded DNA, but which is complementary to a unique known sequence of an oligonucleotide tag fixed to a solid substrate, wherein the extension primer is complementary to the 3' nucleotide sequence of the polymorphic locus, and wherein the last nucleotide at the 3' end of the extension primer hybridizes exactly one nucleotide before the polymorphic locus;
- (b) [and] at least two labeled dideoxynucleotides, each of which is distinctly labeled [of claim 20]; and
- [b] (c) a solid support comprising a probe which is attached to a solid support, wherein the probe is complementary to the 5' portion of the extension primer.